

عنوان مقاله:

Molecular Characterization and SCCmec in Methicillin Resistant Staphylococcus aureus from Healthy Worker Nasal Swab in Larestan Hospital

محل انتشار:

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خلاصه مقاله:

Background and Aims: The aim of present study was to investigate the molecular characteristic of Staphylococcus aureus to detect mec A gene and to type SCCmec in strain isolated from healthy worker at Larestan Hospital. **Material and Methods:** This study was carried out from the ۲۵۰ nasal swab healthy worker at Larestan hospital. Multiplex polymerase chain reaction for mecA gene was performed in all samples. Also, agar screen plate with oxacillin was carried out using CLSI guidelines. The two methods were then compared. **Results:** Of ۲۵۰ samples, ۳۷ (۱۴.۸%) samples are Staphylococcus aureus, ۲۸ (۷۵.۷%) of samples were confirmed at Methicillin-resistant Staphylococcus aureus (MRSA) harboring mec A gene detected by Multiplex polymerase chain reaction (PCR) and ۹ (۲۴.۳%) negative mec A. Sixteen of ۲۸ (۵۷.۱%) were HA-MRSA and the remaining ۱۲ (۴۲.۸%) were CA-MRSA. The Multiplex PCR assay for SCCmec complex of MRSA strains showed that ۹ (۳۲.۱%) samples were SCCmec type I, ۸ (۲۸.۶%) SCCmec type IVb, ۵ (۱۷.۹%) SCCmec type II, ۴ (۱۴.۳%) SCCmec type V and ۲ (۷.۱%) SCCmec type III. Agar screen plate with oxacillin was found in all the ۲۸ MRSA samples to harbor mecA gene and all was resistant. **Conclusion:** Our results illustrated that more than ۷۰% of staph aureus strains were positive for mec A gene and more than ۵۰% of them were HA-MRSA. In comparison to other methods, PCR and Agar screen method more sensitivity determines MRSA isolates. However, PCR was identified as the ideal method for detecting MRSA strains.

کلمات کلیدی:

Healthy worker, Methicillin-resistant, Staphylococcus aureus

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